

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 09/765,621

Attorney Docket No.: Q61229

**REMARKS**

This amendment, submitted in response to the Office Action dated February 24, 2004, is believed to be fully responsive to each point of objection and rejection raised therein.

Accordingly, favorable reconsideration is respectfully requested. Claims 1-20 are all the claims pending in the application.

Claims 4-6, 8-10, 14-16, and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant respectfully requests that the Examiner hold rewriting these claims in abeyance until the rejection of the independent claims 1, 2, 11, and 12 have been reconsidered.

Applicant has amended claims 2, 12, and 15. Claims 2 and 12 are amended to recite the "stationary grid" which is actually used, in photography so as to clearly define the difference from Claims 7 and 8 which recite "each possible stationary grid" which is a plurality of stationary grids which may be used in photography, (grounds of amendment: p.7, line 3). Claim 15 has been amended to correct minor errors and to more clearly define the subject matter of the claim.

Also, Applicant has added new claims 21-30. Claim 21 has been added to more clearly define the claimed invention. Claims 22 and 23 have been added to more clearly define the array direction. In this connection, Applicant has added apparatus claims 24-26 to correspond to claims 21-23.

Further, Applicant has added new claims 27-30 to more clearly recite the features of the present invention. Claims 27 and 28 have been added to depend from claim 2 to clearly define the features of the present invention. Claims 29 and 30 have been added to clearly recite the step of judging the grid array (or length) direction of the stationary grid.

**A. Double Patenting Rejection.**

The claimed invention reduces a transformed image signal which has a desired frequency range containing a spatial frequency component corresponding to at least a frequency of the periodic pattern in only the vicinity of an array direction of the periodic pattern. On the other hand, claim 1 of Hara decreases the frequency components of the image signal which correspond to high frequency periodical structure and patterns, without regard to direction. The direction restriction permits more rapid processing than the claim of Hara, and the directional limitation is not an obvious variant in view of the fact that Hara consistently requires wavelet transforms in two directions (Fig. 2, elements a-d). Therefore, claims 1 and 2 are different and non-obvious in scope in comparison with Hara, and Applicant would request withdrawal of the double-patenting rejection on that basis.

**B. Rejections under 35 U.S.C. § 112.**

The reducing step is performed with respect to the stationary grid that is actually used. Claim 7 is amended to clearly define the features of the present invention that a component less than a predetermined frequency is reduced with respect to a "stationary grid which has been actually used" among "possible stationary grids which may be used" by reducing a component less than the predetermined frequency and performing inverse wavelet transformation with

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respect to each possible stationary grid that may be used. Therefore, Applicant has amended claims 7 and 17 to overcome the rejection under 35 U.S.C. § 112 without limiting the scope of the claimed subject matter.

**C. Rejections under 35 U.S.C. § 102.**

Claims 1, 2, 11, and 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Yazici et al., U. S. Patent No. 6,333,990 ("Yazici"). At a minimum, the edge detection in Yazici cannot be limited to only a direction of a grid array and still preserve medically significant information. By contrast, claims 1 and 2 do limit a directional analysis of the transforms. Additionally, it is clear in Yazici that in isolating the periodic pattern, the grid pattern frequency is not the only frequency range subject to suppression. For example, in isolation of the grid, the range of low frequencies 371 (col. 3, ln. 62-63) become eliminated. The rejection over Yazici is not supported. Applicant asserts that that Yazici cited above by the Examiner fails to teach or suggest all of the claim limitations as set forth in the present application. Since claims 3 and 7 depend from claim 2, and claims 13 and 17 depend from claim 12, and since the Yazici reference does not disclose all of the limitations of claims 1, 2, 11, and 12, Applicant proposes that claims 3, 7, 13, and 17 are patentable at least by virtue of their dependency from claims 2 and 12. Therefore, Applicant respectfully requests that the rejection under 35 U.S.C. § 102 be reconsidered and withdrawn.

The Examiner also contends that claims 1-2 are anticipated by Hara for reasons similar to that discussed in connection with the double patenting rejection. At a minimum claims 1 and 2 describe frequency transformations in only a direction of the grid array. By contrast, Hara

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clearly contemplates combinations of high and low pass filtering and transforms (Fig. 2, element a-d) in two dimensions. However, referring to the original image signal 2 of Hara, to the extent any grid lines are shown, they occur in only one dimension. Accordingly, the filtering is not only in a grid array direction as claimed by claims 1 and 2. Notably, the Examiner has not considered such recitations only in the vicinity of a grid array direction in making the rejection.

Hara does not even teach or suggest the invention recited in claims 3, 7, 13, and 17. These claims depend from claims 2 and 12 which describes frequency transformations in only a direction of the grid array. By contrast, Hara clearly contemplates combinations of high and low pass filtering and transforms (Fig. 2, element a-d) in two dimensions. However, referring to the original image signal 2 of Hara, to the extent any grid lines are shown, they occur in only one dimension. Accordingly, the filtering is not only in a grid array direction as claimed by claims 1 and 12. Notably, the Examiner has not considered such recitations only in the vicinity of a grid array direction in making the rejection. Therefore, the rejection of claims 3, 7, 13, and 17 should be reconsidered and withdrawn.

**D. Conclusion.**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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**23373**

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